

Disposing of clinical and dental waste



By Rebecca Allen¹

Dental professionals are under increasing pressure to understand and adhere to clinical waste regulations. Proper management and disposal of clinical waste is vital and there is strict legislation in place to prevent harm being caused to the environment and to human health.

To dispel some of the misconceptions around clinical waste and to enable organisations to clearly verify if they need to take further steps to become compliant with all regulations, this article outlines the considerations dental businesses must undertake when disposing of both clinical and dental waste safely.

Defining different types of waste

Clinical waste is defined as 'any waste which consists wholly or partly of human or animal tissue, blood or other body fluids, excretions, drugs or other pharmaceutical products, swabs or dressings, syringes, needles or other sharp instruments'. This type of waste may prove hazardous to any person coming into contact with it unless it is rendered safe. Waste is defined as 'hazardous' when the waste itself or the material or substances it contains are harmful to humans or the environment. The other main waste stream is known as offensive waste, which primarily contains waste that is considered unpleasant due to its appearance and smell, for instance incontinence waste.

Fig. 8 Yellow lidded sharps

Amalgam waste is waste consisting of amalgam in any form and includes all other materials contaminated with amalgam. Amalgam waste is hazardous due to the potential of harm to humans and the environment caused by mercury. Any amalgam waste should be placed in a specialist dental container, with a mercury suppressant, to prevent the risk of harm to your dental team from the mercury vapours. In addition all dental practices should have an amalgam separator installed to capture any amalgam particulates in waste water. These should be fitted both to the dental chair and dirty sink.

Other hazardous waste streams typically found in dental practices are fixer and developer from X-ray machines. These must not be mixed prior to disposal and must be sent for disposal via recycling.

As well as this, dental study moulds contain gypsum which, when landfilled with biodegradable waste, can produce hydrogen sulphide gas. Hydrogen sulphide gas is highly toxic and malodorous. In accordance with the Environment Permitting (England and Wales) Regulations 2010, gypsum has been banned from normal landfill (containing biodegradable waste) and must go into a separate cell for high sulphate waste.

Healthcare waste legislation

There are many controls in place to ensure that clinical waste is managed safely and disposed of in a way that ensures human health and the environment remain free from harm. These controls are listed under

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the Environment Protection Act 1990, where it states that it is 'unlawful to deposit, recover or dispose of controlled (including clinical) waste without a waste management licence, or in a way that causes pollution of the environment or harm to human health'.

All clinical waste handling and disposal procedures must comply with the following regulations:

- The Environmental Protection Act 1990 (including the Duty of Care Regulations)
- The Controlled Waste Regulations 2012
- The Hazardous Waste Directive 2011
- The Carriage of Dangerous Goods Regulations.

The statutory 'Duty of Care' applies to everyone involved in the waste management industry. It states that as a producer of any controlled waste it is your responsibility to ensure correct and proper management of the controlled waste your business produces.

The main principles of 'Duty of Care' are about documenting the transfer of waste and ensuring that your waste is handled correctly by waste carriers (eg are you using a registered carrier of waste? Are they are taking waste to suitably licensed/permitted sites?). You should only use a contractor who can provide proof of compliance with the legislation.

The importance of your waste transfer paperwork

Waste Transfer Notes:

For all transfers of waste appropriate documentation must be provided. For non-hazardous waste this is usually in the form of a waste transfer note. You will be provided with an annual waste transfer note covering all transfers of non-hazardous waste for a 12-month period. When you receive this documentation you must check this for accuracy purposes and the return slip must be returned to your waste contractor for full traceability.

Hazardous (England and Wales) or Special (Scotland) Waste Consignment Note:

All consignments of hazardous (special) waste must be accompanied by a hazardous or special waste consignment note.

This will include:

- All site addresses and personnel involved with the waste transfer
- A full description of waste type, including required shipping terms
- Correct European Waste Catalogue (EWC) code for each waste stream
- A required copy for you to store on your premises.

Waste pre-acceptance:

The Environment Agency has imposed a legal requirement in Environmental Permits for disposal sites to ensure that producers carry out audits of their waste before it can be legally accepted and disposed of. These are known as 'pre-acceptance audits'. Producers will also be required to periodically re-audit sites in the future.

To ensure your waste is suitable for any chosen method of disposal, all your waste streams must be audited, documented and this information relayed to your final disposal site. Failure to do this may leave you in breach of your duty of care responsibilities, which can lead to prosecution and unlimited fines.

Colour coding

It is essential to segregate clinical and dental at the point of production following the *Safe Management of Healthcare Waste* guidance issued by The Department of Health.¹ By using the national colour coding system detailed you can easily identify and segregate your waste, and help to drive waste minimisation and best practice within the industry.

Proper segregation of different types of waste is critical to safe management. The mixing of waste streams is prohibited by law in England and Wales, and best practice in Scotland and Northern Ireland. It also helps support waste minimisation and reduces the risk of exposure and injury to your staff.

All containers used for the disposal of clinical waste must be labelled in accordance with the details of the legal requirements for transporting and packaging waste. Your container labels should clearly identify the waste types present within, and should be signed by the producer ready for onward disposal.

Identifying your waste streams

- Yellow - Infectious waste for disposal by incineration (Fig. 1)
- Orange - Infectious waste for disposal by treatment or incineration (Fig. 2)
- Yellow/Black (Tiger) - Offensive/hygiene waste for disposal by deep landfill (Fig. 3)
- Blue - Medicinal waste for disposal by incineration (Fig. 4)
- Purple - containing cytotoxic or cytostatic waste for disposal by incineration (Fig. 5)
- Red - Anatomical waste for disposal by incineration (Fig. 6)
- White - Amalgam waste for recycling (Fig. 7)

Safe management of sharps waste to prevent needlestick injuries

Under the new *Health and Safety (Sharps Instruments in Healthcare) Regulations 2013*,²



Fig. 1 Yellow - Infectious waste for disposal by incineration



Fig. 2 Orange - Infectious waste for disposal by treatment or incineration



Fig. 3 Yellow/Black (Tiger) - Offensive/hygiene waste for disposal by deep landfill

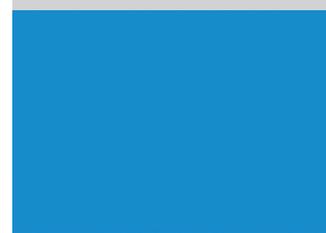


Fig. 4 Blue - Medicinal waste for disposal by incineration

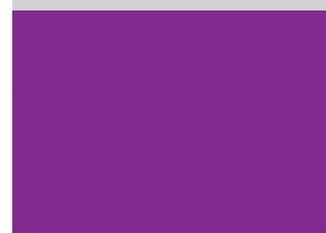


Fig. 5 Purple - containing cytotoxic or cytostatic waste for disposal by incineration

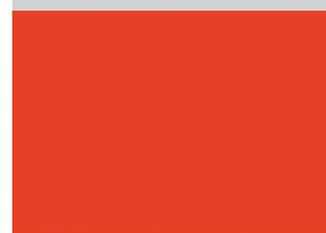


Fig. 6 Red - Anatomical waste for disposal by incineration

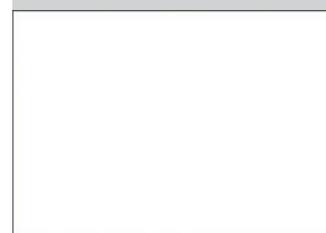


Fig. 7 White - Amalgam waste for recycling



Fig. 9 Orange lidded sharps

healthcare facilities need to assess the risk of exposure to blood-borne infections from sharps injuries, identify how to eliminate this and where exposure cannot be eliminated, put into place extensive prevention methods. The new legislation also requires a framework for the occurrence of a sharps injury. The directive is supported by a local, national and European-wide reporting system and employers need to revise their reporting procedures with health and safety representatives.

Key tips to make sure you comply with the new regulations:

- Implement safe procedures for using and disposing of sharp medical instruments and contaminated waste
- Eliminate the unnecessary use of sharps by implementing changes in practice and through providing medical devices incorporating safety-engineered protection mechanisms
- Provide sharps disposal equipment as close as possible to the assessed areas where sharps are being used or found
- Ban the practice of recapping
- Use personal protective equipment
- Train your practice staff on the correct use of sharps devices and the disposal of sharps waste.

It is essential that your sharps are segregated and disposed of correctly based on their medical contamination. The lid colour of the receptacle relates to how the waste should be treated and disposed of.

Consider the following in your dental practice:

Yellow lidded sharps (Fig. 8)

Yellow lidded: sharps that are contaminated with medicines (excluding cytotoxic or cytostatic medicines) for disposal by incineration.

Orange lidded sharps (Fig. 9)

Orange lidded: sharps that are not contaminated with medicines for disposal by treatment or incineration.

Blue lidded sharps (Fig. 10)

Blue lidded: waste medicines, such as used and unused LA cartridges for disposal by incineration.

The guide above should provide an overview of how to effectively dispose of your clinical waste to avoid compliance issues, and more importantly, harm to other people and the environment. If you have any further questions about safely disposing of clinical waste, contact an expert company, who provide tailored advice according to your business needs.

Choosing a clinical waste management company

The first and most important thing to check is that you are using a Registered Waste Carrier; you can do this by asking to see a copy of their licences. Following this, the **Top 10 Things** you need to look out for are:

- 1) Is the waste carrier licensed to take away the types of waste you are producing?
- 2) Are the service technicians that will be collecting your waste ADR licensed? This is essential when transporting dangerous goods such as clinical waste
- 3) Will you receive all the compulsory waste documentation to cover your waste transfers?



Fig. 10 Blue lidded sharps

- 4) Will your waste be fully traceable from point of product through to end disposal?
- 5) Do all the products supplied to you meet legal requirements, such as UN approval for your sharps containers?
- 6) Will the supply of products be free of charge or are they an additional cost?
- 7) Will your waste be fully segregated on-site and during transportation to meet the current regulations?
- 8) Can the clinical waste management company guarantee your service delivery will happen on time, every time?
- 9) Has the service been tailored to your requirements?
- 10) Are there any hidden charges?

1. This has been superseded by the following publication. Department of Health. Environment and sustainability. *Health Technical Memorandum 07-01: Safe management of healthcare waste*. 20 March 2013. Available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/167976/HTM_07-01_Final.pdf (accessed 4 April 2014).
2. Health and Safety Executive. *Health and Safety (Sharp Instruments in Healthcare) Regulations 2013. Guidance for employers and employees*. 2013. Available at: www.hse.gov.uk/pubns/hsis7.htm (accessed 4 April 2014).

Initial Medical is an expert in healthcare waste management, providing a complete collection, disposal and recycling service for hazardous and non-hazardous waste and offensive waste produced by businesses and organisations within the UK. Initial Medical's healthcare waste services ensure that all of your waste is stringently handled in compliance with legislation and in accordance with Safe Management of Healthcare Waste V2 best practice guidelines, providing you with the peace of mind that you are adhering to current legislation. Visit www.initialmedical.co.uk or call 0870 850 4045.

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